Oldham-Cooper, R., & Loades, M. (2017). Disorder-specific versus generic cognitive-behavioral treatment of anxiety disorders in children and young people: a systematic narrative review of evidence for the effectiveness of disorder-specific CBT compared with the disorder-generic treatment, Coping Cat. *Journal of Child and Adolescent Psychiatric Nursing*, *30*(1), 6-17. https://doi.org/10.1111/jcap.12165

Abstract

Background: Coping Cat, a generic cognitive-behavioural intervention for anxiety disorders in children and young people, is recommended in the UK for social anxiety disorder (SAD), generalised anxiety disorder (GAD), separation anxiety (SA), and specific phobias (SP), with disorder-specific approaches generally favoured in treatment of anxiety disorders in adults.

Objectives: To compare Coping Cat with disorder-specific CBT interventions based on anxiety-related treatment outcomes.

Study selection: Primary research articles describing treatment of children and young people aged 7-17 for SAD, GAD, SA, and SP, using Coping Cat or disorder-specific CBT.

Results: Ten studies implemented Coping Cat and 4 implemented disorder-specific CBT. One study compared Coping Cat with a disorder-specific approach. There was a lack of data to support use of Coping Cat in treatment of SPs. However, Coping Cat was equally effective as disorder-specific treatments for SA and SAD.

Conclusions: A lack of data exists for disorder-specific CBT interventions compared to Coping Cat.

Keywords

Child and adolescent, anxiety disorder, disorder-specific, Coping Cat, Cognitive Behavioural Therapy

Introduction

Anxiety disorders are among the most common mental health disorders occurring in childhood (Cartwright-Hatton, McNicol, & Doubleday, 2006). In a UK study conducted in 1999 the estimated prevalence of anxiety disorders in children aged 5–15 years was 3.8%, accounting for around 40% of all DSM-IV disorders in this group (Ford, Goodman, & Meltzer, 2003). Moreover, high comorbidity has been reported in children and young people (CYP), both among different anxiety disorders and between anxiety disorders and other DSM-IV disorders such as depression (Ford et al., 2003; Kendall et al., 2010). It has been suggested that in the majority of cases of anxiety disorders diagnosed in adulthood the disorder may have begun in childhood or adolescence (Ferdinand & Verhulst, 1995; Kim-Cohen et al., 2003; Pine, Cohen, Gurley, Brook, & Ma, 1998). Accordingly, researchers have stressed the importance of early intervention for anxiety disorders in CYP (Kendall et al, 2004).

The Children and Young People's Improving Access to Psychological Therapies programme (CYP IAPT) was introduced in 2011 to improve existing Child and Adolescent Mental Health Services (CAMHS) in England. The CYP IAPT National Curriculum (2013) outlines recommended treatments for anxiety disorders. The Curriculum's authors highlight a lack of NICE guidance on the treatment of generalised anxiety disorder (GAD), separation anxiety (SA) and social anxiety disorder (SAD) in CYP (p. 31, CYP IAPT Programme's Education and Curriculum Task and Finish Group, 2013). According to the authors, the 'most substantial' evidence for a treatment

approach for the above disorders is for the Coping Cat (CC) programme. CC is also suggested as the treatment approach of choice for specific phobias (SP) in CYP.

CC is a manualised cognitive-behavioural treatment for anxiety disorders developed by Kendall and colleagues (Kendall, 1994; Kendall et al., 1997; Kendall & Hedtke, 2006a; Kendall & Hedtke, 2006b). The treatment is recommended for children aged 7 to 13 years with GAD, SA, and/or SAD (Kendall, Hudson, Gosch, Flannery-Schroeder, & Suveg, 2008). A modified version of the treatment also exists for 14-17 year-olds. There are 16 hour-long sessions in total, comprising 8 hours of 'skills training', and then 8 hours of 'exposure tasks', with the overall aim of equipping children with the skills to recognise and confront, rather than avoid, situations they find anxiety-provoking. An important feature of CC is that it is not targeted toward a specific anxiety disorder presentation. The authors justify this 'generalised' approach on the grounds that there is a high degree of comorbidity between anxiety disorders in CYP (Creswell, Waite, & Cooper, 2014; Kendall et al., 2010). In addition, well-validated maintenance models for specific anxiety disorders in CYP do not currently exist (Creswell et al., 2014).

In contrast, in the cognitive-behavioural treatment of anxiety disorders in adult populations the use of disorder-specific approaches is commonplace and is supported by a strong evidence-base (e.g., Butler, Fennell, & Hackmann, 2010; Kendall, 1994; Reynolds, Wilson, Austin, & Hooper, 2012; though see Schulte, Künzel, Pepping, & Schulte-Bahrenberg, 1992). For example, treatments for SP tend to focus largely on exposure to phobic stimuli and

often some cognitive restructuring; treatment for GAD tends to incorporate exposure to worry, relaxation training, cognitive restructuring and coping strategies, and treatment for SAD generally incorporates elements of exposure, cognitive restructuring, relaxation training, practice at reducing self-monitoring behaviours, and social skills training (see Olatunji, Cisler, & Deacon, 2010 for a review). Therefore, while many treatments share similar elements, some are disorder-specific (e.g. social skills training in SAD, coping strategies in GAD).

As Kendall (1994) noted, the evidence for disorder-specific versus 'generic' treatment approaches in CYP is lacking (see also Rapee, Schniering, & Hudson, 2009). Recently, knowledge has begun to advance in relation to this matter. For example, some studies have suggested poorer outcomes for generic CBT approaches for SAD in CYP compared to disorder-specific approaches (e.g., Creswell et al., 2014; Kerns, Read, Klugman, & Kendall, 2013), although one study reported little advantage of a disorder-specific treatment approach compared to CC in the treatment of SA (Schneider et al., 2013). Moreover, one recent study reported good outcomes for a single-session treatment of SP (while the 16-session CC treatment is recommended by CYP IAPT; Ollendick et al., 2009). These findings highlight a need for systematic comparison of the efficacy of disorder-specific versus generic treatment approaches for anxiety disorders in CYP.

A recent meta-analysis conducted by Reynolds et al. (2012) included a comparison of a number of 'disorder-generic' and 'disorder-specific' cognitive behavioural treatments for anxiety disorders in CYP. Reynolds et al. (2012)

reported that across the 55 randomised controlled trials they included, the overall effect size was moderate for the treatment of anxiety disorders with disorder-generic approaches (including, but not limited-to, CC), whereas for disorder-specific treatments the effect size was medium-to-large. In their discussion, the authors concluded that disorder-specific treatment approaches appeared to have a larger effect size, but noted that a confounding variable was the lack of availability of separate treatment outcome data for different disorders, which was problematic for the calculation of effect sizes.

An alternative approach to explore this important question further is the use of a critical, systematic, narrative review of the current literature. Specifically, the recommendations made by CYP IAPT's National Curriculum appear to favour a disorder-generic treatment approach, CC, rather than disorder-specific approaches for the treatment of four different anxiety disorder presentations (GAD, SAD, SP and SA). The above-proposed alternative approach to the question of whether disorder-specific approaches are preferable to CC would allow for more flexible comparisons to be made for a relatively sparse literature, and could also highlight areas worthy of future research.

Therefore, the aim of the present review was to undertake a critical, narrative review of whether disorder-specific cognitive behavioural interventions, as favoured in the treatment of anxiety disorders in adults, are more effective compared to the disorder-generic CC treatment approach for SAD, GAD, SA, or SP, in CYP aged 7-17 years, based on treatment outcomes assessed using validated measures relating to anxiety symptoms, including remission rates.

Following from this overall aim, the main objectives were as follows:

1) To compare anxiety-related outcomes associated with treatment of four anxiety disorders using CC and disorder-specific cognitive behavioural interventions. Outcomes considered were remission rates and specific validated anxiety measures.

2) To consider the quality of studies included, to allow for exploration of any differences in overall quality of the evidence for disorder specific CBT interventions versus CC.

Methods

Search strategy

Searches were conducted by the primary author on 24th April 2015 using the research databases Science Direct and APA Psychnet (with each database accessing around 2500 peer-reviewed journals), to identify primary research articles describing the treatment, using individual psychological therapy, of GAD, SAD, SA and SP in children aged 7 – 17 years. The search was conducted according to the PRISMA guidelines for conducting systematic literature reviews (Moher, Liberati, Tetzlaff, & Altman, 2009). Initially, search criteria were entered into the two chosen databases based on the inclusion and exclusion criteria presented in Table 1. The reference lists of recent review articles were also checked for further relevant articles. The review articles used were Reynolds et al. (2012), Davis, May, and Whiting (2011), Ishikawa, Okajima, Matsuoka, and Sakano (2007), and Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, and Harrington (2004). The resulting articles were combined in a single list and duplicates were removed (see Figure 1).

Search criteria

Inclusion and exclusion criteria used can be found in Table 1. Where the afore-mentioned disorders were included together with other disorders, such as obsessive-compulsive disorder, and results were not presented separately for the disorders of interest, these articles were excluded. In some of the earliest studies of CC (Kendall, 1994; Kendall et al, 1997), diagnoses were based on DSM-III criteria. These studies included CYP with diagnoses of 'overanxious disorder', 'avoidant disorder' and SA. Kendall et al (1997) highlighted, however, that in the DSM-IV overanxious disorder was subsumed under the diagnosis of GAD, and avoidant disorder under the diagnosis of SAD, with the characteristics of identified cases unchanged by the change in terminology. Therefore, these studies were included and interpreted according to DSM-IV diagnostic categories.

Table 1. *Search criteria* **>> Table 1 here**

Data extraction

Data extraction was conducted using a standardised form. The primary author performed all data extraction and the resulting summary forms were checked by the second author. Discrepancies in judgement were resolved by consensus.

>> Figure 1 here

Figure 1. PRISMA flow diagram showing study selection and inclusion

Quality assessment

Articles were assessed for quality using the Cochrane Collaboration's tool for assessing risk of bias, recently updated by Higgins et al. (2011). This tool allows the researcher to assess randomised-controlled trials for risk of bias based on six different domains of possible bias, including selection bias (random sequence generation and allocation concealment), performance bias (blinding of participants and personnel), detection bias (blinding of outcome assessment), attrition bias (incomplete outcome data), reporting bias (selective reporting) and 'other' bias. The tool was used to guide the consideration of potential sources of bias affecting the studies included in the present review, and for a comparison between CC and disorder-specific treatment studies to be made, although no studies were removed from the review based on the identification of possible bias.

Data analysis

In order to explore whether there were any differences between disorder-specific cognitive-behavioural interventions and the disorder-generic CC programme for treatment of SAD, GAD, SA, or SP, in CYP aged 7-17 years, the outcomes assessed were remission rates (i.e., the number of cases who were diagnosis-free at end of treatment), and anxiety symptom severity, if assessed using a validated measure. The analysis strategy was a narrative review, which included assessment of study quality as well as the outcomes noted above. Assessment of study quality was an important aspect of the review, as it allowed for study outcomes to be assessed in the context of aspects of their design, methodology and reporting. A meta-analysis was not conducted because of the very small number of disorder-specific intervention studies available; narrative review was considered to be a more appropriate

and meaningful way of synthesising the information to address the review question.

Results

Twenty-four published articles were included in the review. All were randomised-controlled trials. Seventeen articles reported outcomes for only six original samples – six from the CAMS trial (original study by Walkup et al., 2008), two from an original study by Kendall et al. (2008), two from Kendall (1994), two from Barrett, Dadds, and Rapee (1996), three from Kendall et al. (1997), and two from Ollendick et al. (2009), and so these are considered as only six single sets of data. This left 13 datasets, or 'studies', for inclusion. One study compared a disorder-specific treatment approach with CC in treatment of SA (Schneider et al, 2013) and was therefore included in both the 'CC' and 'disorder-specific' categories. Overall, there were 10 datasets, comprising 20 individual articles with 1076 participants in total describing the use of CC, and four datasets, comprising five articles and a total of 393 participants that described a disorder-specific approach. Of the four datasets relating to a disorder-specific approach, two described the treatment of SPs, one described the treatment of SA, and one described the treatment of SAD. No studies relating to treatment of GAD met the inclusion criteria. The studies were undertaken in North America, Sweden and Switzerland. Different studies assessed diagnostic status in different ways, which limits direct comparisons and also precluded a meta-analysis. Table 2 provides a summary of the datasets included.

Table 2. *Characteristics of individual studies included in the review*

>> Table 2 here

Quality assessment

An assessment of quality, based on the Cochrane risk of bias assessment tool, suggested that there was in some cases an unclear or possibly increased risk of bias for many of the studies included. The evidence used to assess the risk of bias in each of the six areas is outlined in Supplementary Information. Comparison of CC and disorder-specific intervention studies suggested that study quality has generally improved over time, with more recent studies addressing most of the possible sources of bias considered while earlier studies, such as the first studies of CC, had unclear or increased risk of bias due to, for example, lack of reporting around the randomisation strategy used, lack of blinding or independent raters in the assessment of outcome, and unclear methods for monitoring treatment integrity. In addition, there was a general move away from using a non-active, waiting-list control, to comparison with active treatments in more recent studies. Despite this, the small number of studies of disorder-specific CBT interventions meant that despite a generally low risk of bias among them, the available evidence for disorder-specific CBT remains extremely limited compared to that for CC.

CBT delivery

In the 10 studies describing the implementation of CC, treatment ranged between 12 and 20 approximately weekly sessions of 50 to 80 minutes. All

reported following the CC (or Coping Koala) manual, with at least some monitoring of treatment integrity, excepting Walkup et al. (2008). Some studies specifically reported modification of an existing manual to make it more suitable for adolescents (Siqueland et al., 2005; Walkup et al., 2008), for example by including visualisation techniques in addition to breathing and progressive muscle relaxation exercises, and increased use of cognitive restructuring and socratic questioning (Siqueland et al., 2005).

In the 4 disorder-specific treatment studies, length of intervention ranged between a single session of up to three hours (Öst et al., 2001; Ollendick et al., 2010) and 12-16 sessions of 50-60 minutes each approximately once per week (Herbert et al, 2009; Schneider et al, 2013). All disorder-specific interventions were based on an existing manual or published treatment protocol, and treatment integrity was explicitly attended to in all studies excepting Öst et al. (2001).

Most studies attended to treatment integrity by assessing CBT delivery against pre-defined standards. In addition, many of the studies also provided details of therapist training, supervision and competence, which may be relevant to outcome. These are briefly summarised in the Supplementary Information. There was an increase in reporting of supervision and training practice over time. In addition, it is worth noting that the earliest trials of CC were conducted in university, rather than community, clinics. However, overall there were no major differences in therapist professional status, experience and training, or supervision, between CC and disorder-specific studies.

Diagnostic status after treatment

Across studies of CC, the percentage of individuals classified as no longer meeting criteria for their primary diagnosis at post-treatment was between 53% and 87%, across all studies where these data were available (see Table 2). In the Walkup et al (2008) study, data were only available for 12-week follow-up, and for all disorders rather than the primary diagnosis only, and suggested a slightly poorer outcome (46.2%). Where long-term follow-up data were available in addition to post-treatment data, these suggested slight increases in remission rates of primary diagnosis after the CC intervention (e.g., Flannery-Schroeder & Kendall, 2000; Barrett et al., 1996, 2001, Siqueland et al., 2005). In the only study to report a decrease in the percentage of the sample who were diagnosis-free after treatment with CC, this decrease occurred between 4 weeks and one year post-treatment, and no diagnostic data were available immediately post-treatment (Schneider et al., 2013).

Of the 10 studies of CC, 4 compared treatment with CC to a wait-list control (Kendall, 1994; Kendall et al., 1997; Barrett, Dadds & Rapee, 1996; Flannery-Schroeder & Kendall, 2000). In each of these studies, CC was found to be significantly more effective, in terms of the percentage of the sample who were considered diagnosis-free at the end of treatment, compared to no treatment. In studies that included an active control, the outcomes were more variable. When compared with a disorder-specific CBT intervention, there were no significant differences in terms of the percentage of the sample free of their primary SA disorder diagnosis at either 4-weeks or 1-year post-treatment (Schneider et al,. 2013). Three studies included a comparison group who received CC plus a family-based intervention, one compared group

versus individual CC, one used a non-directive 'child centred therapy' and one compared CC with 'usual care'. Most studies reported no significant differences in outcomes for CC versus the active control based on diagnostic status (Kendall et al., 2008; Siqueland et al., 2005; Flannery-Schroeder & Kendall, 2000; Silk et al., 2013, Southam-Gerow et al., 2010), although one study reported CC + family-based intervention outperformed CC alone (Barrett, Dadds & Rapee, 1996).

Some studies were able to compare the effectiveness of CC across different disorders within their samples. No significant differences in primary outcomes across different primary diagnoses were reported by Barrett, Dadds and Rapee (1996) or Kendall et al. (1997). However, both Kerns et al. (2013) and Ginsburg et al. (2011; CAMS trial) reported significantly poorer remission rates for children with SAD compared to GAD and SA at 7.4 year and 12-week follow-up, respectively. However, Ginsburg et al.'s study analysis included participants who received CBT+sertraline, sertraline only, and placebo-only, and so individual outcomes for CC alone could not be assessed.

Across studies of disorder-specific interventions there was also variability in the percentage of individuals who no longer met criteria for their primary anxiety disorder, or were considered 'clinically improved' (see Table 2). There were differences between studies in the way that diagnostic outcomes (e.g. rates of remission) were assessed. Follow-up periods varied between 6 months and 1 year. In three cases the rates of remission or clinically significant improvement were stable from post-treatment to follow-up (Öst et al., 2001; Ollendick et al., 2009; Schneider et al., 2013), and in Herbert et al.'s

(2009) study the percentage of ‘remitted’ patients who received the individual disorder-specific treatment dropped between post-treatment and 6-month follow up, though the authors did not state whether this represented a significant decrease.

Measures of post-treatment severity

The studies utilised a number of different measures of anxiety symptom severity including self-report, parent and teacher report, and clinician/ assessor ratings (see Supplementary Information). The findings were mixed, demonstrating in some cases advantages of both CC (e.g., Kendall, 1994; Kendall & Southam-Gerow, 1996; Barrett, Dadds & Rapee, 1996; Barrett et al., 2001; Kendall et al., 1997; Kendall et al., 2004; Kerns et al., 2013; Flannery-Schroeder & Kendall, 2000; Kendall et al., 2008; Suveg et al., 2009; Walkup et al., 2008; Ginsburg et al., 2011; Caporino et al., 2013; Piacentini et al., 2014; Compton et al., 2014; Beidas et al., 2014) and disorder-specific interventions (Öst et al., 2001; Ollendick et al., 2009, 2010), for some measures of anxiety symptom severity, particularly over waiting-list control conditions, yet in many cases did not demonstrate advantages of CC or Disorder-Specific treatments over other interventions (Kendall & Southam-Gerow, 1996; Barrett, Dadds & Rapee, 1996; Kendall et al., 1997; Kendall et al 2004; Kerns et al., 2013; Southam-Gerow et al., 2010; Barrett et al., 2001; Flannery-Schroeder & Kendall, 2000; Siqueland, Rynn & Diamond, 2005; Kendall et al, 2008; Suveg et al., 2009; Öst et al., 2001; Herbert et al., 2009; Ollendick et al., 2009, 2010; Silk et al., 2013) on specific measures of anxiety symptom severity. In the only study assessing outcomes for both CC and a

disorder-specific intervention for the treatment of SA disorder, little difference in outcomes was demonstrated (Schneider et al., 2013).

Discussion

The present review addressed the following research question: are disorder-specific cognitive behavioural interventions, as favoured in the treatment of anxiety disorders in adults, more effective compared to the disorder-generic CC treatment approach for the treatment of SAD, GAD, SA, or SPs in CYP aged 7 to 17? The review produced limited evidence that disorder-specific approaches produce better outcomes compared to CC, currently recommended in England for the treatment of these anxiety disorder presentations. This held true for both diagnostic outcome and assessments of anxiety severity post-treatment.

Our finding contrasts with that of a similar review conducted by Reynolds, Wilson, Austin and Hooper (2012), who reported that larger effect sizes were achieved for disorder-specific compared to disorder-generic treatment approaches. However, the present review differed from that of Reynolds et al. (2012) in a number of ways. First, as mentioned above, Reynolds et al. compared a number of different disorder-generic treatment approaches with disorder-specific interventions, while the present review included only disorder-generic studies that used CC. Second, Reynolds et al. included studies that employed a range of interventions, including CBT, Narrative Therapy and Eye Movement Desensitization and Reprocessing, whereas the present review included studies of CBT only. Third, Reynolds et al. included a

broader range of anxiety disorder presentations than the present study, for example OCD and panic disorder. Fourth, the age-range of participants included in Reynolds et al.'s review was wider than in the present study. Finally, the review conducted by Reynolds and colleagues included studies of group and individual interventions, whereas group interventions were not considered here.

In summary, the present review differed from that of Reynolds and colleagues in a number of ways, and is therefore able to provide a more detailed and flexible comparison of disorder-specific CBT with CC for disorders which CC has been recommended as a treatment of choice for CYP presenting in CAMHS services in England. For these disorders, there does not seem to be a clear overall advantage of disorder-specific CBT interventions over the currently recommended CC.

However, the picture is less clear when each anxiety disorder presentation is considered in turn. Although one previous study (Kerns et al., 2013) reported poorer outcomes after treatment with CC for children with SAD compared to GAD or SA, in Herbert et al.'s (2009) study the outcomes reported for an alternative disorder-specific treatment of SAD were not particularly striking, and did not provide strong evidence that a disorder-specific intervention is more efficacious than a disorder-generic approach. Similarly, in the only study reporting outcomes of a disorder-specific CBT intervention for SA (Schneider et al., 2013), which included a direct comparison with CC, no clear advantages of either treatment were found for remission rates or validated measures of anxiety-symptom severity at post-treatment or follow-up at 1-month or 12-months. The evidence for effectiveness of CC compared to

disorder-specific approaches in the treatment of GAD cannot be commented on, since no disorder-specific treatment of GAD met inclusion criteria. However, the evidence for the effectiveness of CC in treatment of SP is far less compelling than that for the other disorders included in this review. Just 11 participants with a primary diagnosis of SP made up the total 1076 participants contributed by studies of CC. These 11 participants came from a single study – the only study to have included participants with a diagnosis of SP in an RCT involving CC (Southam-Gerow et al., 2010). In this study there were 48 participants in total. Twenty-four were allocated to receive CC, and only 18 completed post-treatment assessments. The exact number with a SP who entered the CC intervention arm was not reported, but it is anticipated that not all 11 would have received CC. Therefore, given the far greater sample sizes of the two studies exploring effectiveness of a disorder-specific treatment for SP (combined N = 256), it is not clear that the best available evidence supports the use of CC for SP.

Quality of the evidence and strengths and limitations of the review

The strengths of the present review include the consideration of a variety of outcomes including remission rates and anxiety symptom severity, the consideration of validated measures of outcome only, and the use of a standardised quality assessment tool. The systematic narrative approach allowed for flexible comparisons to be made for studies that used a wide variety of measures, designs, implementation of interventions and follow-up periods. The approach also allowed for comparisons to be made where the existing literature was sparse – i.e., for disorder-specific approaches.

However, a number of limitations should also be addressed. The present review included only studies involving individual CBT implemented using either CC or a disorder-specific cognitive-behavioural protocol. This decision was made on the basis of the research question posed, and facilitated direct comparison of disorder-specific treatments with CC, which was originally devised as an individual intervention. The present review did not aim to explore the effectiveness of different variations of CC, such as augmentation with a family-based approach or implementation via a group. Inclusion of a variety of formats such as group interventions was beyond the scope of the review, although where included as an additional treatment arm alongside an individual intervention, outcomes were compared. However, the exclusion of group-only studies, and those implementing behavioural interventions only, meant that a number of disorder-specific studies could not be considered here. For example, Spence, Donovan and Brechman-Toussaint (2000) reported very positive outcomes for group-based CBT for SAD in 7-14 year-olds, Beidel, Turner and Morris (2000) reported positive outcomes for a behavioural treatment of SAD in 8-12 year-olds, and Clementi and Alfano (2014) reported positive outcomes in a small sample of 7-12 year-olds for a behavioural treatment of GAD. The ability to include a greater number of studies that explored different disorder-specific treatment approaches in the review would have been useful in that it would increase the amount of data on which conclusions could be drawn, and would also have allowed for the consideration of disorder-general versus specific treatments for GAD. In addition, comparing different disorder-specific treatment approaches could have allowed for cross-comparisons between different approaches for a single

disorder to be made. In addition, a number of trials were rejected based to their inclusion of CYP outside the 7-17 year age bracket. Although this could have affected the findings, it was felt that the imposition of such an age bracket was important to ensure that a fair comparison was made for CC, which was developed for this age-group only. Thus, the inclusion of studies of CC that reported outcomes for children outside of this bracket may not have provided a fair representation of the effectiveness of CC, and the inclusion of disorder-specific studies reporting outcomes for children not aged 7-17 would have been an inappropriate comparison for CC studies.

Other factors that could affect the conclusions drawn include the country of origin (no study included participants from England or the United Kingdom, for example), the different outcome measures utilised, variations in analysis strategy used, the lack of analysis-by-disorder for CC in many of the studies, and the paucity of studies describing implementation of disorder-specific approaches. This final limitation could perhaps be viewed as evidence that disorder-generic approaches are simply most suited to the treatment of childhood anxiety, for example due to the high degree of comorbidity between anxiety disorders in this population. Another possibility is that the minimal differences found between different approaches in terms of anxiety-related outcomes is due to flexibility in the implementation of different interventions. It is possible that clinicians delivering disorder-generic treatment approaches such as CC will naturally make small adjustments according to the child's presentation, meaning that in practice there is little difference between disorder-specific and disorder-generic approaches. Such flexibility could mean that a disorder-generic treatment such as CC is a more pragmatic intervention

because it would likely require less staff training and therefore allow a greater throughput of patients than employment of a number of separate disorder-specific treatments by a service. This is particularly relevant given the finding that no treatment approach appeared to ‘stand out’ against any other in terms of outcomes.

Policy and practice implications

The present review was motivated by the observation of a difference in approach to the treatment of anxiety disorders in children and adults. While the adult literature generally supports disorder-specific approaches, disorder-generic treatments are often utilised in treatment of child anxiety disorders. This is reflected in the CYP IAPT National Curriculum (2013), which outlines recommended treatments for anxiety disorders in CYP and suggests that CC is used to inform the treatment of GAD, SA disorder, SAD and SP, whilst acknowledging the limited evidence base for treatment of these disorders in CYP.

As noted above, for the treatment of SA and SAD, the evidence does not appear to favour either a disorder-specific or a disorder-generic treatment approach. Nor does it appear to favour one mode of delivery of CC (i.e., individual versus group, CC augmented with specific family interventions) or even, in many cases, CC rather than alternative interventions such as ‘usual care’ or ‘non-directive supportive psychotherapy’. Therefore, in the absence of a clear alternative to CC, no changes are recommended for the guidelines on treatment of these disorders, nor for general practice, although recommendations for future research are discussed below. For the treatment of SPs, however, it is suggested that the evidence for the use of CC to inform

intervention is not sufficiently compelling at present. Therefore, we suggest that alternative treatment approaches be considered for the CYP IAPT National Curriculum, and that clinicians consider the weight of the evidence for different approaches to inform their practice. A detailed review of alternatives for the treatment of SPs was beyond the scope of this project, although it is suggested that Öst and colleagues' One Session Treatment for SPs is one possible alternative (Öst et al., 2001). Indeed, a clear benefit of such a package for treatment of SPs is the relatively small amount of time required for the treatment – a single session of up to three hours - compared to 16 hours of CC, if delivered according to the manual: a large potential saving in clinician hours.

Recommendations for future research

A key recommendation is that further studies should compare outcomes for the disorder-generic treatment, CC, with disorder-specific approaches. In addition, it is recommended that a review be conducted of the current evidence base for different disorder-specific approaches to the treatment of SPs in CYP, given the finding that the evidence base for use of CC in the treatment of SPs appears extremely limited. It is also recommended that future studies consider disorder-specific and disorder-generic approaches in terms of their ability to provide cost-efficiency as well as positive outcomes, by assessing factors such as treatment duration and use of additional services, and by implementing the treatment approaches in community settings rather than university clinics, as described in the study by Southam-Gerow and colleagues (2010) included in this review.

Conclusions

The disorder-generic treatment for childhood anxiety disorders, CC, appears to be equally effective compared to disorder-specific treatments for SAD and SA. Conclusions about disorder-specific treatments for GAD could not be drawn. However, for SPs the current evidence appears to favour disorder-specific treatments over CC. Study quality appears to have improved over time, although future studies should begin to utilise direct comparisons of CC with alternative disorder-specific treatments and assess effectiveness for treatments in terms of cost and time, based on community, rather than university clinic settings. A useful direction for future reviews would be to consider evidence for disorder specific versus generic approaches for particular disorders.

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